

**LIGHT EMITTING DIODE-BASED SIGNAL LIGHT****Abstract of the Disclosure**

A light-emitting diode-based light source **(40)** for retro-fitting into a traffic signal lamp **(10)** employing an incandescent light bulb **(12)** includes at least one light emitting diode (LED) **(46)**, a dispersing reflector **(62)** cooperating with the at least one LED **(46)** to adapt light **(60)** produced by the at least one LED **(46)** for receipt by optics of the traffic signal lamp **(10)**, and a screw-type electrical connector **(42)** adapted to mate with a threaded socket connector **(18)** of the traffic signal lamp **(10)**. The screw-type electrical connector **(42)** is adapted to transmit electrical power to the at least one LED **(46)**. A method **(100)** is provided for the retro-fitting, including the step **(104)** of removing the threaded light bulb **(12)** from the threaded socket **(18)**, and the step **(106)** of connecting the threaded LED light source **(40)** into the threaded socket **(18)**.